

# CARBON MONOXIDE

A colorless, odorless,  
toxic gas is produced  
from incomplete  
combustion of gas oil,  
kerosene, and wood.



**May cause dizziness,  
nausea, or headache**

**Excessive exposure may  
cause unconsciousness  
and death**

**May aggravate heart  
and artery diseases**



## AREA OFFICES

<b>Chattanooga</b>	<b>(423) 634-6424</b>
<b>Jackson</b>	<b>(731) 423-5640</b>
<b>Kingsport</b>	<b>(423) 224-2042</b>
<b>Knoxville</b>	<b>(865) 594-6180</b>
<b>Memphis</b>	<b>(901) 543-7259</b>
<b>Nashville</b>	<b>(615) 741-2793</b>
	<b>(800) 249-8510</b>
<b>Consultative Services</b>	<b>(800) 325-9901</b>

*Individuals with hearing  
impairments please call our  
TDD Line (615) 532-2879*

Visit our Web site at  
**[www.tn.gov/labor-wfd](http://www.tn.gov/labor-wfd)**

The Tennessee Department of Labor and Workforce  
Development is an equal opportunity employer.  
Auxiliary aids and services are available upon  
request to individuals with disabilities



Tennessee Department of Labor and  
Workforce Development, Authorization  
#337424, 1,000 copies, March 2012.  
This public document was promulgated  
at a cost of \$0.12 per copy.

# Carbon Monoxide

***"The Hidden Killer"***



**Special Emphasis  
Program**



## Tennessee OSHA's Special Emphasis Program for Carbon Monoxide

Tennessee OSHA has instituted a Special Emphasis Program for Carbon Monoxide (CO). This is established to focus statewide attention on carbon monoxide and to reduce employee exposure to, and eliminate deaths from, carbon monoxide.

During all health and safety inspections the TOSHA compliance officer or consultant will make the employer aware of the Carbon Monoxide Special Emphasis Program and will measure the level of employee exposure to carbon monoxide. Interventions will be made when necessary.

### What Can CO do to you?

Carbon monoxide (a colorless, odorless, tasteless gas) is one of the most common industrial hazards. Mild exposure can cause such symptoms as nausea, dizziness or headaches while severe poisoning can result in brain or heart damage or even death. The poisonous gas is produced by the incomplete burning of any material containing carbon, such as gasoline, natural gas, oil, kerosene, propane, charcoal, or wood. One of the most common sources of exposure in the workplace is the internal combustion engine (such as small gasoline-powered engines and tools, gasoline or propane-powered forklifts). Forges, blast furnaces, and coke ovens also produce carbon monoxide.

### Suggestions for employers

Install an effective ventilation system to remove carbon monoxide.

Maintain appliances and equipment in good order (preventive maintenance).

Consider switching from fossil-fuel powered to battery-powered equipment.

Ensure that air from compressors used to supply breathing air is Grade D.

Install carbon monoxide monitors or regularly test the air in areas where carbon monoxide is generated.

Instruct workers in the hazards, signs, and symptoms of carbon monoxide exposure.



A TOSHA inspector prepares a sampling pump to sample the air for an atmospheric contaminant.

### TOSHA laws for carbon monoxide exposure employer requirements:

- ☐ Ensure that exposures are kept below the limits in Table Z-1-A (general industry).
  - 35 ppm for an eight-hour time-weighted average
  - 200 ppm for a short-term limit (five minutes)
  - 1500 for an instantaneous limit

### If there is a potential for exposure to carbon monoxide

- ☐ Include carbon monoxide in the Hazard Communication Program inventory list of hazardous chemicals.
- ☐ Obtain a material safety data sheet for carbon monoxide and include information on carbon monoxide in the Hazard Communication Program.
- ☐ Post a carbon monoxide warning sign in each area where there is a potential for carbon monoxide exposure and include it in annual Right-to-Know training.

For more information and publications on carbon monoxide contact your local Tennessee OSHA office or visit [www.osha.gov](http://www.osha.gov).